DELAWARE NUTRIENT MANAGEMENT PROGRAM

DELAWARE CONSERVATION PRACTICE STANDARD

STORMWATER MANAGEMENT FOR NEW SOURCE LARGE CAFOs

(Reported by [Acre, Feet, or Number])

DEFINITION

Stormwater management is a system of vegetative, structural, or other measures that manages water quality impacts of stormwater runoff from new source Large CAFOs.

PURPOSES

The purposes of stormwater management for new source Large CAFOs are as follows:

1. To manage runoff from impervious and compacted surfaces such as roofs, concrete pads, and access roads within the production area to prevent erosion and minimize downstream impacts.
2. To prevent a discharge of sediment, nutrients, manure, litter or process wastewater pollutants from the production area.

CONDITIONS WHERE PRACTICE APPLIES

Stormwater Management for New Source CAFOs applies to the management of the runoff from the production area of a CAFO that is defined as a "New Source" handling dry manure.

CONSIDERATIONS

Site New Source CAFO production areas considering the following:

1. Soils – Construction production areas in soils that are suitable for the use. Poorly drained soils are not appropriate for construction of New Source CAFO production areas.
2. Wetlands – Construct production areas outside of regulated and non-regulated wetlands. Maintain existing wetlands as an effective filtering practice for runoff from production areas.
3. Floodplains – Construct production areas outside of the 100-year flood plain to prevent contact of runoff in the floodplain with production area contaminants.
4. Tax Ditch rights-of-way – Construct production areas outside of established tax ditch rights-of-way to prevent interruption of maintenance activities on the tax ditch. For up to date information on Tax Ditch Rights of Way call 302-855-1955.
5. Utility easement – Construct production areas outside of utility easements to prevent interruption of maintenance of the easement. Contact Miss Utility by calling 1-800-282-8555 prior to construction to have existing utility lines marked.
6. Property lines – Construct production areas considering the local property line set-back requirements.
7. Water bodies – Construct production areas with a minimum setback from water bodies consistent with the application area setback requirements.

CRITERIA

1. Reduce the volume of stormwater runoff generated from the production area by minimizing impervious, compacted, and disturbed areas to the maximum extent practicable. Employ BMPs to reduce

the volume of stormwater runoff from the Resource Protection Event, the 1-year, 24-hour rainfall event (2.7 inches of rainfall), to achieve an equivalent 0% effective imperviousness. "Effective imperviousness", for the purposes of this standard, means the equivalent percentage of a site's impervious area that directly contributes stormwater runoff during the Resource Protection Event after all runoff reduction practices have been implemented.

2. For cases in which the minimum reduction requirements are not met, the allowable discharge for remaining runoff shall not exceed the equivalent 24-hour detention time of the runoff volume from the 1-year, 24-hour rainfall event.
3. Minimize exposure of manure, litter or process wastewater to stormwater runoff by:
    a. Timing cleanout of litter and manure from the confinement area to avoid rain events,
    b. Handling manure and litter under roof when practical,
    c. Preventing spillage of litter and manure, and
    d. Cleaning up any spilled litter and manure as soon as practical.
4. Maintain all areas except those under roof or in access roadways in accordance with the Critical Area Planting standard, NRCS Code 342.
5. Construct Access Roads in accordance with NRCS Code 560 to better manage the movement of vehicles to control erosion and sedimentation.
6. Construct Water Control Structures in accordance with NRCS Code 587 in drainage ditches receiving runoff from the production area to manage the quantity of runoff from the production area, and to manage the quality of the runoff by trapping sediment and nutrients.
7. Divert clean stormwater runoff away from the production area before that runoff comes into contact with any contaminated surface within the production area.
8. Store manure, litter, and and/or process wastewater in accordance with NRCS Code 313 Waste Storage Facility.

PLANS AND SPECIFICATIONS

Stormwater management plans and specifications for new source CAFOs shall be designed, engineered and calculated by a qualified individual of NRCS, the local Conservation District, or private individual. A plan shall be developed with all appropriate details necessary to ensure successful construction of the stormwater management system for the new source Large CAFO.

OPERATION AND MAINTENANCE

An operation and maintenance plan for new source CAFO stormwater management BMPs will be developed by the individual designing the plan. The operation and maintenance plan shall be specific to the BMPs that have been implemented. The operation and maintenance plan shall be provided to and reviewed with the CAFO permittee.

REFERENCES

1. Technical Document to support the *Delaware Sediment and Stormwater Regulations* contains design guidance for achieving compliance with the Resource Protection Event Criteria.
2. NRCS Code 342 Critical Area Planting
3. NRCS Code 560 Access Road
4. NRCS Code 587 Water Control Structures
5. NRCS Code 313 Waste Storage Facility